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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/770,215

01/29/2001

Christophe Mangin

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05/20/2004

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EXAMINER

NGUYEN, VAN KIM T

ART UNIT

PAPER NUMBER

2661

8

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/770,215

Applicant(s)

MANGIN, CHRISTOPHE

Examiner

Van Kim T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This Office Action is responsive to communications filed on January 29, 2001.

Claim Objections

Claims 8-17 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claims. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claims 1, 7, and 10 are objected to because of the following informalities:

Claim 1 recites "acknowledgement segment an ---" on line 9. It probably should have been "acknowledgement segment on ---".

Claim 7 recites " $W_a = \text{Min}(i, W_a)$ " on line 7. It probably should have been " $W_a = \text{Min}(\text{Lim}, W_a)$ ".

Claim 10 recites "o e" on line 1. It probably should have been "one".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the flow " on line 1, "the level" on line 2, "the TCP segment" and "the connection pass" on line 3, "the acknowledgement segment" on line 4, etc.

There is insufficient antecedent basis for this limitation in the claim.

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Similarly, claim 18 recites the limitation “the down link” on line 4, “the basis” on line 5, etc. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al (US 6,687,227), in view of Comer (Internetworking with TCP/IP, Principles, Protocols, and Architectures, Fourth Edition, 2000).

As shown in Figures 1-5, Li discloses a method of controlling the flow of at least one TCP connection between a sender (30, 34) and a receiver (32, 36), comprising: receiving an ACK from the receiver to sender at a multiplexing node (38, 40); controlling (revising) a window size parameter; and transmitting an ACK to the sender from the multiplexing node with an updated window size parameter (col. 4: line 60 – col. 5: line 8; col. 5: line 45 – col. 6: line 24).

However, Li does not explicitly call for controlling the window size based on the difference between the first context value and the second context value associated with respective TCP connections and sequence numbers.

As shown in Figure 13.7 (page 221), Comer teaches a TCP segment comprising a header field follow by a data field. The header comprises a sequence number, an acknowledgement number, and an associated window field. Comer also teaches that at any time, TCP acts as if the window size is the different between the first context value (receiver_advertisement) and the

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second context value (congestion_window), (page 232-233: Section 13.20 Response to Congestion).

Since it is highly desirable to effectively transport packet data using Internet protocol such as TCP/IP in an under-utilizing allocated high-speed radio channel, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Comer's method of updating window size in Li's TCP network, motivated by the need to reduce network congestion, maximize data throughput, and efficiently utilize network resources.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Dillon (US 6,701,370); Patel (US 6,697,378); Jorgensen (US 6,680,922); Lindsay (US 6,564,267); Park et al (US 6,646,985); Thorne et al (US 6,643,710); Lindsay (US 6,564,267); Ramaswamy et al (US 6,563,787); Gullicksen et al (US 6,370,114); Dillon et al (US 6,115,750).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Van Kim T. Nguyen whose telephone number is 703-305-7692. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Olms can be reached on 703-305-4703. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

vkn



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